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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,000	10/26/2000	Keiichiro Ishihara	35.C14893	3466

5514 7590 05/17/2002

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EXAMINER

PHAN, JAMES

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 05/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/696,000**

Applicant(s)  
**Ishihara**

Examiner  
**James Phan**

Art Unit  
**2872**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 5, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) 10-18, 19/(10-18) and 20/(10-18) is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-9, 19/(1-5,8-9) and 20/(1-5,8-9) is/are rejected.
- 7) ☒ Claim(s) 6-7, 19/(6-7) and 20/(6-7) is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other: \_\_\_\_\_

Art Unit: 2872

## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of the species (1) in Paper No. 5 is acknowledged. The traversal is on the ground(s) that amended claims now recite an optical scanning apparatus and thus all claims constitute a single species. This is not found persuasive because the change in preamble of the amended claims does not make the amended claims unpatentably distinct from claims of the species (1). The non-elected species (2), including amended claims, does require light source means having a plurality of light-emitting regions for providing a plurality of light beams, while the species (1) does not. Furthermore, the species (1) does require at least a search in class 347, subclasses 256, and 258-261, while the species (2) does not; and the species (2) does require at least a search in class 359, subclass 204, and class 347, subclasses 233, 241 and 243-244, while the species (1) does not.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims claims 10-18, 19/(10-18) and 20/(10-18) are withdrawn from further consideration pursuant to 37 CAR 1.142(b), as being drawn to a nonelected species.

Art Unit: 2872

***Claim Objections***

3. Claim 8 is objected to because of the following informalities: claim 8 is misdescriptive because ">= 2" (line 3) should be --<= .6-- (see original claim 6). Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 8-9, 19/(1-5,8-9) and 20/(1-5, 8-9) are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki (Figs. 1 and 5 and column 8, lines 5-21).

Yamazaki discloses a scanning optical system which comprises light source means (1), deflecting means (4), and scanning optical means which includes a first lens and a second lens located between the deflecting means and a surface to be scanned (7) (see Fig. 1). In column 8, Yamazaki discloses that a plurality of non-symmetrical surfaces with respect to the optical axis may be included/utilized (lines 18-21), Yamazaki further discloses that the curvature of the non-symmetrical surface in the auxiliary direction varies from the center to the periphery along the main scanning direction (Fig. 5 and column 8, lines 22-24).

Art Unit: 2872

In re claim 3 see Fig. 5.

In re claim 4 Fig. 5 clearly shows the curvatures in the sagittal direction become large on the side of the light source means. Note that the prior art discloses that the lens located on the side of a scanned surface includes a non-symmetrical surface, **and the non-symmetrical surface is located on the side of a polygonal mirror (lines 5-9).** From Fig. 5 “the side of the polygonal mirror” is “on the side of the light source means”.

In re claim 5 Fig. 5 clearly shows the inflection point where the optical axis and the surface intersected.

In re claim 8 the claimed condition “ $k/W \leq .6$ ” is inherently disclosed because the effective scanning width  $W$  would be much larger than the coefficient  $k$ . Note that the lenses of the prior art has the  $F-\theta$  lens characteristic (see column 2, line 61 to column 3, line 9) and thus, they have been taken as  $F-\theta$  lenses.

In re claim 9 see column 4, lines 48-49.

In re claims 19/(10-18) and 20/(10-18) the claimed features are inherently disclosed because the disclosed optical scanning apparatus is used for a laser beam printer (column 1, lines 5-14.

Art Unit: 2872

***Allowable Subject Matter***

5. Claims 6-7, 19/(6-7) and 20/(6-7) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: none of the cited references teaches or fairly suggests an optical scanning apparatus having the structure defined by claims 6-7, 19/(6-7) and 20/(6-7)

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703) 308-4810. The fax phone number for this Group is (703) 308-7722.

Phan, J.

May 14, 2002

  
**James Phan**  
**Primary Examiner**